

MALE COMBAT IN THE BLACK WHIP SNAKE, *DEMANSIA VESTIGIATA*. *Memoirs of the Queensland Museum* 37(1): 52, 1994. - Male combat is well known in Australian elapids and boids (Shine, 1991). It has been reported in many elapid genera - *Austrelaps*, *Cryptophis* (now *Rhinoplocephalus*), *Demansia*, *Hemiaspis*, *Notechis*, *Oxyuranus*, *Pseudechis* and *Pseudonaja*. These genera are characterised by male size superiority. Male combat is unknown in genera in which females are larger than males e.g. *Acanthophis* and *Vermicella*, (Shine & Allen, 1980; Shine, 1991). Shine (1978) first reported this sexual dimorphism/male combat correlation and has commented on its adaptive significance (Shine, 1981, 1991). He summarised this as a "... male strategy for (i) forcing rival males to flee from the vicinity of a receptive female ... (ii) physically "carrying" rival males away from a female ... (iii) defending against homosexual courtship .. and (iv) gaining access to food ..." (Shine, 1981).

We report recent observations of male combat in *Demansia vestigiata* and present photographs of combat in this species. On June 13, 1994 two snakes were encountered 11 km south of the Starcke R., NEQ (14°51'S, 145°02'E), in a grassy open forest dominated by *Melaleuca viridifolia*. (This is typical habitat for *D. vestigiata* on Cape York Peninsula). At about 4.00pm they were found in the open, in the wheel rut of the unsealed track from Cooktown to the Starcke R. They were observed and photographed (Fig. 1 A-C), but were not examined to check sex. However, as mating has been observed by one of us (JC) to be relatively passive in this species; as the snakes were observed very closely (from a distance of about 5m) and were not copulating; as they were large (with TLs of approximately 70cm); and their behaviour was very similar to that reported for male combat in other elapid species, we are confident both snakes were males. We watched their ritual for close to 45 minutes. They moved, as a pair, about 20m along the road - all the time twisting, coiling, raising their forebodies both together and separately, and then falling back to begin the sequence anew.

Male combat in *D. vestigiata* has been recorded before, briefly. Shine (1980) noted an observation by Neil Charles, near Cooktown, 22 September (year not cited). "... The two males were plaited together in typical ritualised combat ... were captured and their sex confirmed ...". It has also been photographed before by J. Stanisic, D. Potter and J. Chaseling, 21 September, 1988, near the Captain Billy Landing turn-off, Cape York Peninsula. Their photographs have been lodged in the Queensland Museum Photographic Index (NP119-21). *Demansia vestigiata* is a species in which the males exceed females in size. Our observations conform with several strategies suggested by Shine (1981) to explain this behaviour. The activity carried both snakes far from their starting point in the short period they were observed closely. Shine (1980) observed "... no clear seasonal pattern (in reproduction) is evident in *D. atra* (now *D. vestigiata*) ...". Our Winter observation, considered with the only others known (in Spring) is consistent with this.

Literature Cited

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 1980. Ecology of eastern Australian Whipsnakes of the genus *Demansia*. *Journal of Herpetology* 14(4): 381-389.
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FIG. 1. A-C, *Demansia vestigiata*, males in combat, Starcke R., NEQ.

- Shine, R. & Allen, S. 1980. Ritual combat in the Australian Copperhead, *Austrelaps superbus* (Serpentes, Elapidae). *Victorian Naturalist* 97: 188-190.
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